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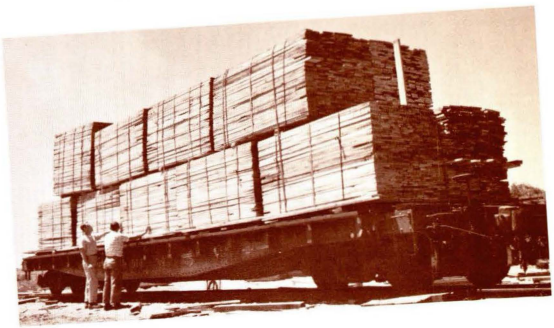
a System for Classifying Wood-Using Industries and Recording Statistics for Automatic Data Processing

by E.W. Fobes, R.W. Rowe



NORTH CENTRAL FOREST EXPERIMENT STATION

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

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Foreword

Presented here is a method of recording wood industry statistics for automatic data processing — the result of a cooperative study by North Central Forest Experiment Station, Minnesota's Department of Iron Range Resources and Rehabilitation, and Department of Conservation Division of Lands and Forests.

Directories and other reports published by a number of eastern states were studied as well as methods used in gathering and compiling the data for them. The classification system and recording method developed as a result of this study (currently in use by Minnesota) is described in this report. Because specific needs vary between States, the method provides for items not currently used by Minnesota but which may be desirable elsewhere. It also provides for future expansion and inclusion of additional items.

Acknowledgement of advice and assistance in developing the method is due a number of individuals and organizations. Specific recognition is due Edwin Kallio, North Central Forest Experiment Station, U.S.D.A., Forest Service; Robert Peura, Minnesota Department of Conservation; John Brownell and William W. Barton of U.S.D.A., Forest Service, State & Private Forestry; Julian M. Opela, University of Minnesota at Duluth; and Ray Pfeifer, Michigan Department of Conservation.

A SYSTEM FOR CLASSIFYING WOOD-USING INDUSTRIES AND RECORDING STATISTICS FOR AUTOMATIC DATA PROCESSING

E. W. Fobes and R. W. Rowe

Detailed statistics about our wood-using industries are continually needed. One of the most common uses of such data is to locate buyers and sellers of wood products. The data are often compiled by various hand sorting methods into directories according to geographical location (counties, etc.), type of product (lumber, etc.), and type of operation (sawmills, treating plants, etc.). However, the usual hand sorting and compiling methods take so long that the directories may be out of date by the time they are published.

A pilot study was made in northern Minnesota by the State's Department of Iron Range Resources and Rehabilitation to evaluate the feasibility of using automatic data processing (ADP) to replace presently used hand methods of sorting and compiling wood industry statistics. Results indicate that success depends directly upon the industry classification system and method of recording and preparing field data for machine processing. Furthermore, it was determined that the system and method should be broad and flexible enough to include all items of current interest and additional data as needed. This report describes such a classification system and suggests a method of using it to prepare input data for ADP.

Items for which data are normally gathered were determined from recent surveys of wood-using industries made by various states. Questionnaires and recording forms, as well as items recorded, varied considerably. The most common recording system involved the use of edge-notched cards designed specifically for recording forest products industry data. Since there is a need for local as well as central office records, there would be advantages in using the edge-notched cards at the county level and ADP at the regional or state level. To facilitate transferring data from one system to the other, provision was made in the ADP system for all the items on the presently used edge-notched cards.

The original objective of the pilot study was to design a classification system for sawmills and a method of preparing input data for ADP that would facilitate compiling directory and production data. It soon became apparent that utilization and marketing specialists as well as researchers needed information on many more items. The objectives, therefore, were expanded to develop a system that:

1. Provides for data from all segments of the wood-using industry.
2. Can be easily revised and updated.
3. Provides for retention of data gathered and addition of data as they become available.
4. Permits sorting, regrouping, and analyzing all collected data.
5. Facilitates fast, accurate processing of input data.
6. Minimizes duplication and overlapping.
7. Provides an input medium that allows processing on any ADP equipment.
8. Permits development of standard reusable ADP programs for such projects as preparing directories and computing resource drain and other recurring reports.

A classification system and field recording method were developed to achieve these objectives.

Classification of Wood Products Processing Industries

The first step was to select terms that clearly define types of wood processing operations. A clear-cut classification system without duplication is highly desirable but difficult to design for wood-using firms. Overlapping and duplication can be minimized in most instances by using change in ownership or physical transfer of wood from one plant to another as criteria for classification. Therefore, five major divisions in the wood products industry were recognized: timber harvesting, primary wood processing, intermediate wood processing, end product processing, and end product using. These are described in detail below.

Timber Harvesting Industries

Includes all operations that remove trees or parts thereof from the forest. It includes felling trees, bucking into logs, skidding, and all other activities performed in the forest as well as transportation to processing plants, concentration yards, or other assembly points.

Primary Wood Processing Industries

Includes all plants that receive raw material directly from the forest, or in essentially the same form as produced by timber harvesting operations, and convert it to another product. These industries depend directly upon the forest. The total raw material purchased by these industries (excluding imports and exports) should equal the total produced by the timber harvesting industries. Subclassification of these industries is as follows:

Sawn Products Industry

Includes all plants that reduce round wood, as received from the forest, by sawing into marketable products: sawmills, stave mills, bolter mills, handle plants, tie and timber mills, shingle mills, etc. Sawmills that are adjunct to other operations would be excluded from this classification. Two examples are sawmills used by veneer mills to saw veneer cores into lumber and those used to saw cants for veneer slicers. In the first case the raw material for the sawmill is not in the form as received from the forest and in the second case the cants are not generally considered a marketable product.

Veneer Products Industry

Includes plants that convert logs, bolts, or cants into thin material by peeling, slicing, or sawing. It includes plants that produce both veneer and plywood, veneer and boxes, and veneer and baskets. It excludes plants that buy veneer for splicing or manufacturing plywood, boxes, baskets, and other items.

Fiber Products Industry

These are plants that produce such products as pulp, hardboard, insulation board, and roofing felt. Most of their raw material is in the form of pulpwood but some of it may be chips obtained directly from the woods or from other primary processing plants. Excluded are paper or other mills that purchase pulp from primary processing plants.

Other Industries Using Round Wood

Includes all processing plants that use raw wood produced by timber harvesting operations not included in the foregoing classes. Examples are post, pole, and piling plants; charcoal plants; specialty product plants; chemical distillation and extraction plants; excelsior plants; chipping plants; and particle board plants. Excluded are plants that treat sawn products.

Intermediate Wood Processing Industries

Plants in this classification receive their raw material from primary processing plants or other intermediate plants but do not process it into a final or end-use product. An example is a cut-up plant that receives lumber from sawmills and ships the cut-up parts to furniture plants. Another example is a veneer-splicing plant that receives veneer from veneer mills, splices and cuts it to size before shipping it to a kitchen cabinet door plant. Plywood plants producing furniture parts are included in this classification.

End-Product Processing Industries

Includes plants that receive raw materials from primary or intermediate processors and manufacture consumer products that require no further processing. Examples are furniture, toy, and sporting goods manufacturers; box, pallet, and crate manufacturers that purchase lumber; and paper mills that operate entirely on purchased pulp. Many primary processing plants retain ownership or control of the wood until it becomes an end-use product. These plants are not included in this category. Examples are softwood saw-

mills producing planed lumber (an end product), veneer and plywood mills producing wall panels, hard board plants, and pulp and paper mills. Although these plants are classified as primary processing plants, the end products are also recorded. This permits including them in directories showing producers of specific products.

End-Product Using Industries

Includes wood-using industries not elsewhere recorded that provide markets for wood products. These may be wood-related industries such as lumberyards and building contractors, or totally unrelated industries such as machine manufacturers that purchase pallets, car blocking, etc.

The ADP Method

There appears to be a growing need for information on ADP, particularly the details for using it. Minnesota has used ADP directly to prepare and publish a directory of wood processors and users (see Appendix). Although other states have used ADP for compilation of data, few have prepared directories or other reports directly from machine printouts. Computer programs for doing this can be developed provided the input data are well organized.

Systematic recording of data for machine input is the first and one of the most important steps in the process. The edge-notched cards now widely used provide an organized system for recording data, but they cannot be used with the ADP equipment generally available. Punchcards, which serve the same purpose as edge-notched cards, can be used with such equipment. Another advantage of punchcards is that data punched can also be printed on the top edge of the card (fig. 1), making it possible to hand sort small quantities of cards that would be kept in county or other local offices. A disadvantage of hand sorting either edge-notched or punchcards is that they can become lost or mutilated. Duplicating punchcards, however, can be done rapidly by machine, while duplicating edge-notched cards is a slow, difficult process.

In the edge-notched card system presently being used, all the data for each company are recorded on one card. The amount of data that can be recorded for sorting is therefore limited to the number of holes in the edge of the card. Additional data must be recorded on, and read from, the face of the card. With the punchcard system, however, any number of cards can be used for each company, thereby greatly increasing the amount of data that can be machine sorted.

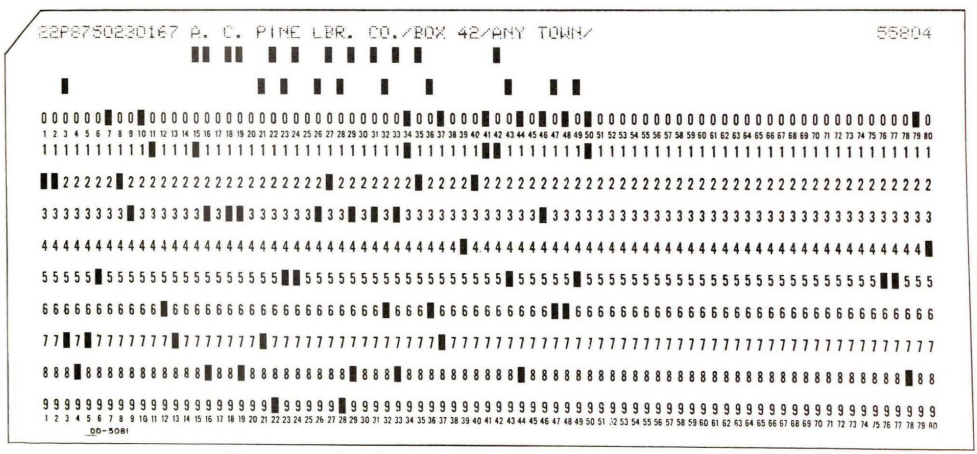

Figure 1. — Punchcard used in automatic data processing.

Field Recording Forms

A common procedure is to translate data recorded in the field to a coded form for punchcard operators. This step has been eliminated here by designing field forms that allow data to be recorded in code. Necessary coding instructions are included on the forms whenever possible.

Although the system described provides for recording data for the whole industry, just the timber harvesting and primary processing segments are illustrated in this report. Forms and coding instructions most frequently used for these two are included in the Appendix. As much as possible, forms were designed so they could also be used for other segments of the industry. Additional forms and card numbers are available for recording data not already included.

Those using the system will find it advantageous to extract the portion pertinent to their particular needs and prepare detailed instructions for field recording. Items not desired can be omitted when printing the recording forms but position of remaining items should not be changed.

Punchcard Numbering Scheme

The classifications for all wood-processing and wood-using industries have been described earlier in the report. The system provides 100 punchcards for recording data pertinent to these industries. Allocation of the cards for recording data to conform to the foregoing classifications is as follows:

Card	00	— Divisions within a State (Region, District, County, etc.)
"	01	— Company name, address, and zip code
Cards	02-07	— Telephone number; names of owner, manager, etc.
"	08	— Home of parent corporation
"	09	— Telephone number of parent corporation
"	10-19	— Timber harvesting operations
"	20-29	— Sawn products operations
"	30-39	— Veneer products operations
"	40-49	— Fiber products operations
"	50-59	— Other primary products operations
"	60-69	— Intermediate products operations
"	70-79	— End products operations
"	80-89	— End product users
"	90-99	— Special study data not recorded or obtainable from the preceding cards, data that are confidential or undesirable for permanent recording. These cards are not to be a part of the permanent file.

In general the first card under each classification has information that seldom changes. Card 01, for example, has the company name, which changes less frequently than the personnel recorded on card 02. (Card 01 can be used for printing address labels for monthly newsletters or other reports.) Cards 10, 20, 30, etc., are used to record data on equipment, which will change less frequently than such data as production and number of employees recorded on subsequent cards. The 10 card numbers allocated to each major classification allow for recording a large amount of data, and should adequately provide for future expansion.

Punchcard Coding

Numbers are used wherever possible on punchcards instead of letters because letters require twice as much time to machine sort. In printing directories or reports the computer is programmed to print out words that numbers represent. An alphameric number (one using both letters and numbers) is used for the company identification number to permit alphabetical sorting. The first 13 columns on each card are reserved for identification information:

Columns	1- 2	— State Code Number
"	3- 7	— Alphameric numbers used for identification and alphabetical sorting
"	8- 9	— Industry classification Code Number
"	10-11	— Card number
"	12-13	— Year data on the card is pertinent

The remaining columns are for recording other data.

Identification code is the same as that given in the recording form instructions in the Appendix.

Summary

Recording and compiling information for directories and other reports of the wood-using industry can be accomplished by automatic data processing. Economic and other advantages derived depend upon the system of recording the collected data for machine processing. Punchcards are a practical medium to use for this purpose. A system for dividing the industry into classes and allocating cards to each class has been devised. Recording forms are also described for this suggested system, from which collected data are punched directly into cards. Sample forms are included in the Appendix.

Appendix

Recording Forms

Forms and coding instructions for recording data pertaining to harvesting and primary processing plants are included in this section. Wherever possible, they were designed so they would be applicable elsewhere in the system. Form 12, for example, can be used for recording data on logs produced on harvesting operation or for logs used by a primary processing plant. The included forms provide space for currently pertinent data and will serve as a guide to preparation of additional forms when needed.

Provision is made for a considerable amount of data; as much or as little as needed can be recorded. Instructions can be issued accordingly to disregard the undesired items and designate the forms or data to be recorded. An alternative is to delete the unwanted items and coding instructions when printing forms. If this is done, it is important to leave the remaining items in their originally assigned places.

Instructions to recorders should include the following:

Put only one number or symbol in each blank square.

Use 0 to designate none instead of leaving the space blank; a blank indicates data are lacking or unknown.

Where a percentage is required and only one or two spaces are provided, enter a hyphen in each space to indicate 100 percent. (This will then be punched in the 11 or X position on the card.) When actual volume figures are obtained in the field, they can be written on the form and percentages can be computed and entered in the office.

The box in the upper right-hand corner of each form is to be used by field recorders who will use the same number for all forms pertaining to the same mill, operation, or plant. This is for temporary identification in case sheets for a given company should become detached or separated before permanent mill numbers are assigned to blocks 3 through 7. Permanent numbers will be assigned according to an alphabetical listing prepared in the State office.

State code number (blocks 1 & 2). — To be entered according to the following: Connecticut 06, Delaware 07, Illinois 12, Indiana 13, Iowa 14, Maine 18, Maryland 19, Massachusetts 20, Michigan 21, Minnesota 22, Missouri 24, New Hampshire 28, New Jersey 29, New York 31, Ohio 34, Pennsylvania 37, Rhode Island 38, Vermont 44, West Virginia 47, Wisconsin 48. (Reference Geographical Location Codes GSA.)

Identification code. — An identification code consisting of the first letter of the company name or individual's surname and numerals will be used for identification. This same number will also be used to prepare alphabetical listings. The appropriate letter will be entered in column 3. Numbers will be entered in columns 4 through 7 in the State office. In the initial listing the first 3 columns following the letter will be used thus leaving the 4th column (no. 7) for later additions.

Type of industry code numbers (blocks 8 & 9). — To be entered according to the industry classification as follows:

10 — Harvesting
20 — Sawn products industry
30 — Veneer industry
40 — Fiber products industry
50 — Other industries using round wood
60 — Intermediate processing industries
70 — End products producers
80 — End users of wood products

Detailed subclasses for each of the above are shown on form 01. The major industry classification code should be used when the industry does not conform to any of the subclasses.

Form Number 00

Title Location

To be used for Card Number 00

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers	
6		to be entered	
7		in State Office	
8		Industry Code	
9		Classification	
10	0	Card	
1	0	Number	
2		Year data are	
3		Pertinent	
4		County	
5		Code	
6		Number	
7		Region within the state	
8			
9		Area designation	
20		within the state	
1		District within	
2		the area or region	
3		Space	
4		Ownership - Code *	
5		Forest-Survey Unit	
6			
7			
8			
9			
30			
1			
2			
3			
4			
5			
6			
7			
8			
9			
40			

This form to be filled out in the office. Punch cards to be used for sorting by areas.

Instructions

#24 Ownership - Code
1. Independent.
2. One of several owned by same company.
3. Department
4. Subsidiary
9. Other

Name and address of parent company to be recorded on Form 01 and punched on Card 08. Telephone No. and key personnel to be recorded on Form 02 and punched on Card 09.

Column Number	
1	
2	
3	
4	
5	
6	
7	
8	
9	
50	
1	
2	
3	
4	
5	
6	
7	
8	
9	
60	
1	
2	
3	
4	
5	
6	
7	
8	
9	
70	
1	
2	
3	
4	
5	
6	
7	
8	
9	
80	

* See Instructions for Code

Form Number 01

Title Name & Address

To be used for Card Number 01 and 08

Temporary Number

Column Number		
1		State Code Number
2		
3		First Letter of Co. or Family Name
4		
5		Code Numbers
6		to be entered
7		in State Office
8		Industry Code
9		Classification*
10	0	Card
11	1	Number
2		Year data are
3		Pertinent

IDENTIFICATION CODES

Enter CAPITAL letters, commas, periods, spaces, and numbers as in typing. Abbreviate where necessary and customary; e.g., LBR., CO., etc. Enter continuously with a / after name, address, and town; e.g. PINE LBR. CO., INC./BOX 93/ OAKVILLE/ Since company names, address, etc., vary in length it is necessary to use the / between items to indicate the end of the item so the processing equipment can be instructed to print the following item on the next line or whatever other instructions are appropriate.

* INDUSTRY CODES CLASSIFICATION
Classify According to Major Activity

C	10	HARVESTING NEC. (Not Elsewhere Classified)
	11	Pulpwood.
O	12	Logs; saw and/or veneer.
	13	Pulpwood and logs.
M	14	Posts, poles and/or piling.
	15	Bolts; handle, stave, excelsior, etc.
P	16	Wood; fuel, charcoal, chemical, etc.
	17	Christmas trees.
A	18	Maple syrup or resin.
	19	
N	20	SAWN PRODUCTS INDUSTRY NEC.
Y	21	Softwood lumber.
	22	Hardwood lumber.
	23	Both softwood & hardwood lumber.
N	24	Ties and timbers.
	25	Laths, slats, shingles, etc.
A	26	Core stock lumber.
	27	Sawn and intermediate products.
M	28	Sawn and finished products. (e.g. lumber and pallets).
E	29	Blocking & crating.
/	30	VENEER INDUSTRY NEC.
	31	Face veneer for wall panels, doors, etc.
A	32	Face veneer for furniture, cabinets, etc.
	33	Non-face veneer for cross banding, core, furniture, etc.
D	34	Container veneer for boxes, etc.
D	35	Specialty veneer for tongue depressors, matches, etc.
R	36	Veneer and plywood for panels.
	37	Veneer and plywood for furniture.
E	38	Veneer and plywood for containers, construction, etc.
S	39	Veneer and plywood for specialty products.
S	40	FIBER PRODUCTS INDUSTRY NEC.
/	41	Pulp.
	42	Pulp and paper.
	43	Pulp and hardboard.
	44	Pulp and insulation board.
	45	Pulp and roofing felt.
	46	Pulp and moulded products.
	47	Pulp and food containers.
	48	
	49	

Column Number		
1	T	50 OTHER INDUSTRIES USING ROUND WOOD NEC.
2	O	51 Charcoal.
		52 Particle board, flake board, etc.
3	W	53 Shavings and bedding.
		54 Rustic fencing and furniture.
4		55 Excelsior.
	N	56 Posts.
5		57 Chips for fiber products.
		58 Poles and piling.
6	O	59
7	R	60 INTERMEDIATE INDUSTRIES NEC.
		61 Cut stock for furniture, cabinets, etc.
8		62 Shook for containers, pallets, etc.
9	C	63 Blanks for gun stock, sporting goods, etc.
		64 Turning squares.
50	I	65 Dried lumber (kilns and concentration yards).
		66 Millwork products, moulding, etc.
1	T	67 Veneer products, spliced veneer faces, etc.
		68 Plywood products, door skins, etc.
2	Y	69 Particle board and related products.
3	/	70 END PRODUCTS PRODUCERS NEC.
4		71 Furniture, caskets, store fixtures, cabinets, and similar manufactured products.
5		72 Packaging and handling products--boxes, crates, pallets, excelsior, barrels, wire reels, etc.
6		73 Recreation and related products--sporting goods, toys, novelties, boats, etc.
7		74 Turned and shaped products--(other than sporting goods) spools, bobbins, handles, etc.
8		75 Building and construction products--finished lumber, doors, mouldings, etc.
9		76 Treated wood products--poles, posts, ties, etc.
60		77 Paper, other fiber products and wood particle products (not solid wood).
1		78 Plywood and laminated products--wall panels, etc.
2		79 Wood by-products and derivatives--wood flour, bark products, gums, resins, charcoal, etc.
3		80 END USERS OF WOOD PRODUCTS NEC.
4		81 Related wood using industries. NEC.
5		82 Lumber yards, wholesalers, etc.
6		83 Home building industry--manufacturers of mobile, or prefabricated homes, building contractors, etc.
7		84 Paper, printing, fiber and related industries.
8		85 Unrelated industries. NEC.
9		86 Food processing and agricultural industries.
70		87 Transportation industry--railroads, manufacturers of trailers, truck bodies, etc.
1		88 Hard goods industry--manufacturers of appliances, machines, autos, tools, etc.
2		89 Soft goods industry--manufacturers of textiles, wearing apparel.
3		
4		
5		
6		ZIP
7		CODE
8		
9		
80		

Form Number 02

Title Telephone & Personnel

To be used for Card Number 02 and 09

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers	
6		to be entered	
7		in State Office	
8		Industry Code	
9		Classification	
10	0	Card	
1	2	Number	
2		Year data are	
3		Pertinent	
4		Area	Telephone Number
5		No.	
6			
7	X		
8		Exchange	
9		No.	
20			
1	X		
2			
3			
4			
5			
6		Individuals	
7			
8		Name and	
9			
30		Title	
1			
2			
3			
4			
5			
6			
7			
8			
9			
40			

Enter name of Owner, President, manager or other key individual. Abbreviate title and enter periods, commas, and spaces as needed.

Example: JOHN P. SMITH, OWR.,/L. W. JONES, PRES./

Enter / at end of each item.

Column Number	
1	
2	
3	
4	
5	
6	
7	
8	
9	
50	
1	
2	
3	
4	
5	
6	
7	
8	
9	
60	
1	
2	
3	
4	
5	
6	
7	
8	
9	
70	
1	
2	
3	
4	
5	
6	
7	
8	
9	
80	

Form Number 10

Title Equipment
Includes harvesting, sawn products and roundwood producers.

To be used for Card Number 10, 20, 50

Column Number			
1		**State Code Number**	IDENTIFICATION CODES
2			
3		**First Letter of** Co. or Family Name	
4			
5		**Code Numbers to be entered in State Office**	
6			
7			
8		**Industry Code Classification**	
9			
10		**Card Number**	
1			
2		**Year data** are	
3		**Pertinent**	
4		Space	
5		Chain saws	NUMBER OF PIECES OF EQUIPMENT
6			
7		"Timber Harvesters"	
8		Horses & Mules	
9		Crawler Tractors	
20		Wheel Tractors	
1		Arches	
2		Wheel Skidders	
3		skidding Trailers	
4		"Pre Haulers"	
5		Self Loading Crawlers	
6		Cranes & Jammers	
7		Shovel Loaders & Heel Booms	
8		Forklifts & Front End Loaders**	
9		Trucks	
30		Self-Loading Trucks	
1		Tractor Trucks (Semi)	
2		Trailers (Semi)	
3		Towboats	
4		Portable Mechanical Peelers	
5		Mobile Mechanical Chippers	
6		Stationary Peelers	
7		Stationary Chippers and Shredders	
8		Chip Screen Installations	
9		Space	
40		Headsaw - Code*	

Instructions

#40 Headsaw Code
1. Circular
2. Band
3. Sash Gang
4. Twin Circular
5. Multiple Circular
6. Multiple Band
7. Bolter
8. Mobile Circular
9. Other

#41 Carriage Code
1. Sawyer Hand Set
2. Rider on Carriage
3. Riderless Hydraulic Set
4. Riderless Electric Set
5. Riderless Air Set
6-8 Space
9. Other

#42 Edger Code
1. Single Arbor
2. Double Arbor
3-8 Space
9. Other

#43 Dry Kiln Capacity Code
1. 1 - 25 MBF
2. 26 - 50 MBF
3. 51 - 100 MBF
4. 101 - 200 MBF
5. 201 - 500 MBF
6. 501 MBF & over

Column Number			Temporary Number
1		*Carriage - Code	
2		*Edger - Code	
3		*Dry Kiln(s) - Code by capacity	
4		Space	
5		Resaws Incl. Line Bar Type	NUMBER OF PIECES OF EQUIPMENT
6		Trimmer Saws (end trim)	
7		Grading Chains	
8		Hogs, Hammermills, etc.	
9		Burners	
50		Automatic Stackers	
1		Planers, Surfacers, Jointers	
2		Moulders & Matchers	
3		Post Pointers	
4		Rip Saws	
5		Space	
6		Vats (treating)	
7		Pressure Treating Cylinders	
8		Space	
9		Forklifts (inside plant)	
60		Straddle Trucks	
1		Shavings Machines (for bedding, etc.)	
2		Dryers (shavings, chips, sawdust)	
3		Space	
4		Garland Machines (Xmas decorations)	
5		Maple Syrup Cookers	
6		Charcoal Kilns	
7		Charcoal Briquetting Machines	
8		Lath Weavers	
9		Lath Strippers	
70		Space	
1		Other Eqpmt. for Processing Solid Wood	
2		Other Eqpmt. for Processing Veneer Plywd.	
3		Other Eqpmt. for Processing Chips	
4		Other Eqpmt. NEC	
5			
6			
7			
8			
9			
80			

* See Instructions for Code
** Used outside the plant

Form Number 11

Title Harvesting

To be used for Card Number 11

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers to be entered in State Office	
6			
7			
8		Industry Code Classification	
9			
10	1	Card Number	
1	1		
2		Year data are Pertinent	
3			
4		Space	
5		Type of Operation - Code*	
6		Transportation to Market-Rank 1 Code *	
7		Transportation to Market-Rank 2 Code *	
8		Space	
9		Estimated Value of Equipment to nearest $M	
20			
1			
2		Space	
3		General Condition of Felling Eqpmt. *	
4		General Condition of Felling Eqpmt. *	
5		General Condition of Loading Eqpmt. *	
6		General Condition of Hauling Eqpmt. *	
7		Space	
8		Average Number of Men Felling and Bucking	
9			
30		Average Number of Men Skidding	
1			
2		Average Number of Men Bucking & Loading at Landing	
3			
4		Average Number of Men Hauling	
5			
6		Average Number of Men Employed in Harvesting Operation	
7			
8		Maximum Number of Men Employed (Peak Season)	
9			
40			

* See instructions for code

Instructions

#15 Type of Operation
1. Logs
2. Pulp
3. Tree length logs
4. Tree length pulp
5. Posts, poles, piling
6. Logs & pulp
7. Tree length logs & pulp
8. Xmas trees
9. Other

#16&17 Transportation to Market - Code
1. Truck
2. Rail
3. Water
4-8 Space
9. Other

#23-26 General Condition of Eqpmt.
1. New
2. Good
3. Fair
4. Poor

Column Number		
1		Space
2		Number of Weeks Worked in Year
3		
4		Normalcy of Work Year - Code *
5		Space
6		Average Daily Wage of Piece Worker to nearest dollar
7		
8		Average Daily Wage of Hourly Employee to nearest dollar
9		
50		
1		
2		
3		
4		
5		
6		
7		
8		
9		
60		
1		
2		
3		
4		
5		
6		
7		
8		
9		
70		
1		
2		
3		
4		
5		
6		
7		
8		
9		
80		

Temporary Number

#44 Normalcy of Work Year (in time worked)
1. Below normal
2. Normal
3. Above normal

Form Number 12

Title Logs Produced or Used

To be used for Card Number 12

Temporary Number

Column Number		IDENTIFICATION CODES
1	State Code Number	
2		
3	First Letter of Co. or Family Name	
4		
5	Code Numbers to be entered in State Office	
6		
7		
8	Industry Code Classification	
9		
10	Card Number	
1		
2	Year data are Pertinent	
3		
4	Space	
5	Size Class - Code *	
6	Actual Annual	
7	Production or	
8	Consumption	
9	All Species	
20	(Logs)	
1	Unit of Measurement - Code *	
2	Utilization - Code *	
3	Softwood % of Total	
4	Produced or Used	
5	B-Fir	%
6		
7	Cedar, White or Red	OF
8		
9	Hemlock	SO
30		FT
1	Pine, Jack	WO
2		OD
3	Pine, Red	
4		
5	Pine, White	
6		
7	Spruce or Cypress	
8		
9	Tamarack or	
40	So. Pine	

* See Instructions for Code

Instructions

#15 Size Class - Code

0. Idle
1. 1 - 49
2. 50 - 99
3. 100 - 249
4. 250 - 499
5. 500 - 999
6. 1,000 - 1,999
7. 2,000 - 4,999
8. 5,000 - 9,999
9. 10,000 & over

#21 Unit of Measurement - Code

1. MBF
2. Cord
3. Tons
4. M cubic feet
5. Pieces
6. Lineal feet
7. M square feet
8. Space
9. Other

#22 Utilization - Code

1. Produced
2. Consumed
3. Purchased

Column Number		% OF HARDWOODS
1	Hardwood % of Total	
2	Produced or Used	
3	Ash	
4		
5	Aspen	
6		
7	Basswood	
8		
9	Beech	
50		
1	Birch	
2		
3	Cherry	
4		
5	Cottonwood	
6		
7	Elm	
8		
9	Hickory	
60		
1	Maple, Hard	
2		
3	Maple, Soft	
4		
5	Oak, Red	
6		
7	Oak, White	
8		
9	Walnut, Black	
70		
1	Poplar, Tulip	
2		
3	Sycamore	
4		
5	Gum	
6		
7	Other	
8		
9		
80		

Form Number 13

Title Cordwood Produced or Used

To be used for Card Number 13-42-52

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers	
6		to be entered	
7		in State Office	
8		Industry Code	
9		Classification	
10		Card	
1		Number	
2		Year data are	
3		Pertinent	
4		Space	
5		Size Class - Code *	
6			
7			
8		Actual Annual	
9		Production or	
20		Consumption	
1		All Species (cordwood)	
2			
3		Unit of Measurement - Code *	
4		Utilization - Code	
5		Softwood % of Total	
6		Produced or Used	
7		B-Fir	% OF SOFTWOOD
8			
9		Hemlock	
30			
1		Pine, Jack	
2			
3		Pine, Red	
4			
5		Pine, White	
6			
7		Spruce, Black	
8			
9		Spruce, White	
40			

*See Instructions for Code

Instructions

#15 Size Class - Code
0. Idle
1. 1 - 49
2. 50 - 99
3. 100 - 249
4. 250 - 499
5. 500 - 999
6. 1,000 - 1,999
7. 2,000 - 4,999
8. 5,000 - 9,999
9. 10,000 & over

#23 Unit of Measurement - Code
1. MBF
2. Cord
3. Tons
4. M cubic feet
5. Pieces
6. Lineal feet
7. M square feet
8. Space
9. Other

#24 Utilization - Code
1. Produced
2. Consumed
3. Purchased

Column Number			
1		Tamarack or	% OF HARDWOOD
2		So. Pine	
3		Hardwood % of Total	
4		Produced or Used	
5		Ash	
6			
7		Aspen	
8			
9		Beech	
50			
1		Birch	
2			
3		Cherry	
4			
5		Cottonwood	
6			
7		Elm	
8			
9		Maple, Hard	
60			
1		Maple, Soft	
2			
3		Oak, Red	
4			
5		Oak, White	
6			
7		Sycamore	
8			
9		Gum	
70			
1		Mixed Hardwood	
2			
3			
4		Other Hardwoods NEC	
5		Total Hardwood in Logs	% to nearest 10%
6		Total Softwood in Logs	
7		Softwood Pulp Peeled	
8		Hardwood Pulp Peeled	
9		Softwood as Chips*	
80		Hardwood as Chips*	

#79 - 80 Produced or Used as Chips - This means chipped by producer or purchased as chips

Form Number 14

Title Pole & Piling Production and Consumption

To be used for Card Number 14 & 52

Temporary Number

Column Number		IDENTIFICATION CODES
1	State Code Number	
2		
3	First Letter of Co. or Family Name	
4		
5	Code Numbers to be entered in State Office	
6		
7		
8	Industry Code Classification	
9		
10	Card Number	
1		
2	Year data are Pertinent	
3		
4	Space	
5	Annual Size Class - Code *	
6		
7	Actual Annual Production or Consumption All Species (Piling)	
8		
9		
20		
1	Unit Of Measurement - Code *	
2	Utilization - Code *	
3	Pine, Jack	% OF PILING PRODUCTION OR CONSUMPTION
4		
5	Pine, Red	
6		
7	Pine, White	
8		
9	Western	
30		
1	Southern	
2		
3	Other	
4		
5	Space	
6		
7		
8		
9		
40	Annual Size Class - Code *	

*See Instructions for Code

Instructions

#15-40-66 Annual Size Class - Code
0. Idle
1. 1 - 49
2. 50 - 99
3. 100 - 249
4. 250 - 499
5. 500 - 999
6. 1,000 - 1,999
7. 2,000 - 4,999
8. 5,000 - 9,999
9. 10,000 & over

#21-46-73 Unit of Measurement - Code
1. MBF
2. Cords
3. Tons
4. M cubic feet
5. Pieces
6. Lineal feet
7. M square feet
8. Space
9. Other

#22-47-74 Utilization - Code
1. Produced
2. Consumed
3. Purchased

Column Number		PERCENT OF PRODUCTION OR CONSUMPTION
1		
2	Actual Annual Production or Consumption All Species (Poles)	
3		
4		
5		
6	Unit of Measurement - Code *	
7	Utilization - Code *	
8	Cedar	
9		
50	Pine, Jack	
1		
2	Pine, Red	
3		
4	Pine, White	
5		
6	Spruce	
7		
8	Tamarack	
9		
60	Western	
1		
2	Southern	
3		
4	Other	
5		
6	Annual Size Class - Code *	
7		
8		
9	Posts, all species	
70	produced or consumed	
1		
2		
3	Unit - Code *	
4	Utilization - Code *	
5	Cedar	To nearest 10%
6	Other Softwood	
7	Oak	
8	Other Hardwood	
9		
80		

Form Number 15

Title _____

To be used for Card Number 15

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co, or Family Name	
4			
5		Code Numbers	
6		to be entered	
7		in State Office	
8		Industry Code	
9		Classification	
10	1	Card	
15		Number	
2		Year data are	
3		Pertinent	
4		Space	
5		Status - 1. Idle 2. Active	
6		% Logs Produced Used in Own Mill *	
7		% Logs Produced and sold Locally *	
8		Other Log Outlets, %, specify *	
9		% Pulp Production Sold on Open Market *	
20		% Pulp Production Sold on Contract *	
1		Space	
2		Distance to	
3		Main Market	
4		In Miles	
5		Own Lands	Source of timber to nearest 10% (1=10%)
6		Farm Wood lot or Small Private	
7		Absentee Owner	
8		Industrial	
9		County	
30		State	
1		Federal	
2		Space	
3		Do you Sell Logs on Grades 1. Yes 2. No	
4		Vener Logs,	PRODUCED
5		Nearest 1%	
6		Sawlogs,	
7		Nearest 1%	
8		Tie Cuts,	
9		Nearest 1%	
40		Space	

* See Instructions for Code

Instructions

#16-18 Disposal of Logs

To Nearest 10% & covers all log production

#19-20 Disposal of Pulp

Nearest 10% & Covers all pulp production; contract made before wood cut (#20).

Column Number			
1		Other Sawlog Products, Nearest 1%	
2			
3		Space	
4		Pulp Sale Method(s) *	
5		% of Pulp Sold	
6		by Weight	
7		Space	
8			
9			
50		Xmas Trees	
1			
2		# of Trees Produced	
3			
4			
5			
6		B-fir	Total Xmas Tree Production - to nearest 10%
7		Spruce	
8		Scotch Pine	
9		Red Pine	
60		White Pine	
1		Other	
2		B-fir	Plantation Produced Xmas Trees to nearest 10%
3		Spruce	
4		Scotch Pine	
5		Red Pine	
6		White Pine	
7		Other	
8		B-fir	Sheared Xmas Trees Produced to nearest 10%
9		Spruce	
70		Scotch Pine	
1		Red Pine	
2		White Pine	
3		Other	
4		Do you produce boughs? 1. No 2. Yes	
5			
6			
7			
8			
9			
80			

Temporary Number

#44 Pulp Sale Method(s)
1. Scale
2. Weight
3. Scale & Weight

Form Number 21

Title Sawmill

To be used for Card Number 21

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers	
6		to be entered	
7		in State Office	
8		Industry Code	
9		Classification	
10	2	Card	
11	1	Number	
2		Year data are	
3		Pertinent	
4		Space	
5		Mill Power - Code *	
6		Mill Mobility - Code *	
7		Space	
8		Rated Daily	
9		Capacity - MBF *	
20		Potential Annual Capacity - Code *	
1		Space	
2		Number of Men Barking	
3		and Chipping	
4		Number of Men on	
5		Mill Floor	
6		Total Number of Men	
7		Employed at this Operation	
8		Space	
9		Replacement Value - Code *	
30		Estimated Value - Code *	
1		Space	
2		Basic Products - Code, Rank 1 *	
3		Basic Products - Code, Rank 2 *	
4		Basic Products - Code, Rank 3 *	
5		Space	
6		Seasoning of Products - Code, Rank 1 *	
7		Seasoning of Products - Code, Rank 2 *	
8		Seasoning of Products - Code, Rank 3 *	
9		Grading of Product - Code*	
40		Grading - Code *	

*See Instructions for Code

Instructions

#15 Mill Power - Code
1. Gasoline 4. Steam
2. Diesel 5-8 Space
3. Electric 9. Other

#16 Mill Mobility - Code
1. Stationary
2. Semi-stationary
3. On wheels
4-8 Space
9. Other

#18&19 Rated Daily Capacity - MBF sawed in one 8-hour period with full crew, no breakdowns and average logs.

#20 Potential Annual Capacity Code (250 days X Rated Daily Capacity)
0. Idle
1. 1-49 MBF
2. 50 - 99 MBF
3. 100 - 249 MBF
4. 250 - 499 MBF
5. 500 - 999 MBF
6. 1,000 - 1,999 MBF
7. 2,000 - 4,999 MBF
8. 5,000 - 9,999 MBF
9. 10,000 MBF & over

#29 Replacement Value Code (do not include real estate)
1. $1 - $4,999
2. $5,000 - 9,999
3. $10,000 - 24,999
4. $25,000 - 49,999
5. $50,000 - 99,999
6. $100,000 - 249,999
7. $250,000 - 499,999
8. $500,000 - 1 Million
9. Over $1 Million

#30 Estimated Value - Code
Do you (field man) feel equipment appraisal is
1. Realistic 3. Too Low
2. Too High

#32-34 Basic Products -Code, Rank 1, 2, 3
Rank 1 means the most important;
Rank 2 means the second most important, etc.
1. Lumber
2. Lath
3. Shingles
4. Studs
5. Ties, Timbers & Cants
6. Shavings
7. Charcoal
8. Chips
9. Other

Column Number		
1		Planing of Product-Code *
2		Treating of Prod. - Code, Rank 1 *
3		Treating of Prod. - Code, Rank 2 *
4		Space
5		Slab & Edging Use - Code, Rank 1 *
6		Slab & Edging Use - Rank 1 to nearest 10%
7		Slab & Edging Use - Code, Rank 2 *
8		Slab & Edging Use - Rank 2 to nearest 10%
9		Space
50		Sawdust Use - Code, Rank 1 *
1		Sawdust Use, Rank 1 to nearest 10%
2		Sawdust Use - Code, Rank 2 *
3		Sawdust Use - Rank 2 to nearest 10%
4		Space
5		Bark Use - Code, Rank 1 *
6		Bark Use, Rank 1 to nearest 10%
7		Bark Use - Code, Rank 2
8		Bark Use, Rank 2 to nearest 10%
9		Space
60		Logs Purchased
1		to nearest %
2		Logs Cut on own
3		Operation to nearest %
4		Logs Custom Sawed
5		to nearest %
6		Space
7		Timberland ownership (1=Yes, 0=No) *
8		
9		
70		
1		
2		
3		
4		
5		
6		
7		
8		
9		
80		

#36-38 Seasoning of Products - Code
Rank 1, 2, 3
1. Kiln Dry 3. Air Dry
2. Forced Air Dry 4. Green

#39 Grading of Products - Code
1. Does not grade
2. Partially grades
3. Grades to "Assn. Standards"
9. Other

#40 Grading - Code
1. Grades only softwood
2. Grades only hardwood
3. Grades both
9. Other

#41 Planing of Product
1. Does not plane
2. Planes softwood only
3. Planes hardwood only
4. Planes both
9. Other

#42 Treating of Product - Code, Rank 1
1. Salt treatment
2. Anti stain 4. Penta
3. Creosote 9. Other

#43 Treating of Product - Code, Rank 2

#45-48 Slab & Edging Use - Code
1. Burn as waste
2. Burn as fuel
3. Sell for fuel
4. Sell for chipping
5. Sell for charcoal
6. Chips for pulp
7. Chip for agriculture
8. Use for fill
9. Other

#50-53 Sawdust Use - Code
1. Burn as waste
2. Burn as fuel 6. Use for fill
3. Sell for fuel 7-8 Space
4. Give away 9. Other
5. Sell for agric. use

#55-58 Bark Use - Code
1. Burn as waste
2. Burn as fuel
3. Sell for fuel
4. Give away
5. Chip for agric. use
6. Use for fill
7&8 Space
9. Other

#67 Timberland Ownership - Code
1. Own timberland (land just for the timber)

Form Number 22

Title Softwood Lumber Produced or Used

To be used for Card Number 22,62,72,82

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers to be entered in State Office	
6			
7			
8		Industry Code Classification	
9			
10		Card Number	
1			
2		Year data are Pertinent	
3			
4		Space	
5		Annual Size Class - Code*	
6		Actual Annual Production or Consumption - Softwood & Hardwood	
7			
8			
9			
20			
1		Unit - Code *	
2		Utilization - Code *	
3		Softwood % of Total Produced or Used	
4			
5		Balsam-fir	% OF SOFTWOOD
6			
7		Red Cedar	
8			
9		White Cedar	
30			
1		Hemlock	
2			
3		J. Pine	
4			
5		R. Pine	
6			
7		W. Pine	
8			
9		Spruce	
40			

*See Instructions for Code

Instructions

#15 Annual Size Class - Code
0. Idle
1. 1 - 49
2. 50 - 99
3. 100 - 249
4. 250 - 499
5. 500 - 999
6. 1,000 - 1,999
7. 2,000 - 4,999
8. 5,000 - 9,999
9. 10,000 & over

#21 Unit of Measurement - Code
1. MBF
2. Cords
3. Tons
4. M cubic feet
5. Pieces
6. Lineal feet
7. M square feet
8. Space
9. Other

#22 Utilization - Code
1. Produced
2. Consumed
3. Purchased

Column Number			
1		Tamarack or Larch	
2			
3		Cypress	
4			
5		Southern Pine	
6			
7		Other Softwoods	
8			
9		% of Annual Production	
50		in softwood ties	
1			
2			
3			
4			
5			
6			
7		"D" Sel & Better	SOFTWOOD GRADES BY %
8			
9		Shop	
60			
1		#1 Common	
2			
3		#2 Common	
4			
5		#3 Common	
6			
7		# 4 Common & Poorer	
8			
9		Ungraded	
70			
1		Other	
2			
3			
4			
5			
6			
7			
8			
9			
80		Major Product - Code *	

#80 Major Product - Code
1. Sawn Products
2. Veneer
3. Plywood

Form Number 23

Title Hardwood Lumber Produced or Used

To be used for Card Number 23, 63, 73, or 83

Temporary Number

Column Number			
1		**State Code Number**	IDENTIFICATION CODES
2			
3		**First Letter of** Co. or Family Name	
4			
5		**Code Numbers to be entered in State Office**	
6			
7			
8		**Industry Code Classification**	
9			
10		**Card Number**	
1			
2		**Year data** are	
3		**Pertinent**	
4		Space	
5		Annual Size Class - Code *	
6			
7		Actual Annual	
8		Production or Consumption-	
9		Softwood & Hardwood	
20			
1		Unit - Code *	
2		Utilization - Code *	
3		Hardwood	
4		% of Total Produced or Used	
5		Ash	% OF HARDWOOD GRADES BY %
6			
7		Aspen	
8			
9		Basswood	
30			
1		Beech	
2			
3		Birch	
4			
5		Cherry	
6			
7		Cottonwood	
8			
9		Elm	
40			

*See Instructions for Code

Instructions

#15 Annual Size Class - Code
0. Idle
1. 1 - 49
2. 50 - 99
3. 100 - 249
4. 250 - 499
5. 500 - 999
6. 1,000 - 1,999
7. 2,000 - 4,999
8. 5,000 - 9,999
9. 10,000 & over

#21 Unit of Measurement- Code
1. MBF
2. Cords
3. Tons
4. M cubic feet
5. Pieces
6. Lineal feet
7. M square feet
8. Space
9. Other

#22 Utilization - Code
1. Produced
2. Consumed
3. Purchased

Column Number			
1		Hickory	P R O D U C E D
2			
3		Hard Maple	
4			
5		Soft Maple	
6			
7		Red Oak	
8			
9		White Oak	
50			
1		Black Walnut	O R U S E D
2			
3		Yellow Poplar	
4			
5		Gum	
6			
7		Sycamore	
8			
9		Other Hardwoods	
60			
1		% of Annual Production	
2		in Hardwood Ties	
3		Firsts - Seconds	
4		or Select & Better	
5		#1 Common &	
6		Better	
7		#1 Common	
8			
9		#2 Common	
70			
1		#3 Common	
2			
3		Ungraded	
4			
5		Other Hardwood	
6		Grades	
7			
8			
9			
80		Major Product - Code *	

#80 Major Product - Code
1. Sawn products
2. Veneer
3. Plywood

Form Number 24

Title Marketing

To be used for Card Number 24

Temporary Number

Column Number			
1		**State Code Number**	IDENTIFICATION CODES
2			
3		**First Letter of** Co. or Family Name	
4			
5		**Code Numbers to be entered in State Office**	
6			
7			
8		**Industry Code Classification**	
9			
10	2	**Card Number**	
1	4		
2		**Year data** are	
3		**Pertinent**	
4		Space	
5		Mill Status - 0. Idle 1. Active	
6		Used by Producer, to nearest 10%	
7		Local Sales (Within 25 miles) to 10%	
8		Within State to 10%	
9		Outside State to 10%	
20		Custom Sawing to 10%	
1		Space	
2		Average Distance	
3		to Market	
4		(miles)	
5		Sale Basis Chips or Slabs, Rank 1 - Code *	
6		Sale Basis Chips or Slabs, Rank 2 - Code *	
7		Delivery Distance of	
8		Chips or Slabs	
9		in Miles	
30		Transportation Method - Code *	
1		Weight of	
2		Slabs or Chips	
3		Shipped in Year	
4		(Tons)	
5		Weight of Slabs per MBF	
6		Produced (100 lb. units)	
7		Delivery Price of	
8		Slabs or Chips	
9		(Hardwood)	
40			

* See Instructions for Code

Instructions

#25 - 26 Sale Basis, Chips or Slabs - Code
1. Green ton
2. Dry ton
3. Cord
4. Unit of 2,400 lbs.
5. Load
6-8 Space
9. Other

#30 Transportation Method - Code
1. Rail
2. Truck
3. Barge
4-8 Space
9. Other

Column Number		
1		Space
2		Delivery Price of Slabs
3		or Chips
4		(Softwood)
5		
6		Delivery Price of
7		Chips or Slabs
8		(Aspen)
9		
50		Chip or Slab Pricing Unit - Code *
1		Space
2		Logs Graded
3		Other Roundwood Products Handled - Code *
4		
5		
6		
7		
8		
9		
60		
1		
2		
3		
4		
5		
6		
7		
8		
9		
70		
1		
2		
3		
4		
5		
6		
7		
8		
9		
80		

#50 Chip or Slab Unit - Code
1. Ton
2. Unit
3. Cord

#53 Other Roundwood Products Handled - Code
1. Sell veneer logs
2. Sell pulpwood incl. posts
3. Sell poles & piling
4. Sell veneer logs & pulpwo
5. Sell pulp, poles & piling
6. Sell veneer, pulp, poles and piling
7. Tie Cuts
8. Space
9. Other

Form Number 25

Title Products Produced or Used

To be used for Card Number 29-39-49-59-69-79-89

Temporary Number

Column Number			
1		State Code Number	IDENTIFICATION CODES
2			
3		First Letter of Co. or Family Name	
4			
5		Code Numbers to be entered in State Office	
6			
7			
8		Industry Code Classification	
9			
10		Card Number	
1			
2		Year data are	
3		Pertinent	
4		Blanks for sporting or Rec. Products *	INTERMEDIATE PRODUCTS
5		Blanks for Handles *	
6		Core Stock (Lumber) *	
7		Cooperage Stock *	
8		Pallet parts or shook *	
9		Box Shook or Crating *	
20		Timbers-(Bridge, Mine shoring, ties, etc *	
1		Lumber *	
2		Fencing parts (slats incl. Planks, Pickets, etc.) Lath *	
3		Furniture or Turning Squares *	
4		Furniture Parts (Machined) *	
5		Other-Record Details on back of Form *	
6		Face * (VENEER)	
7		Core or Back * (VENEER)	
8		Container* (VENEER)	
9		Flat or Specialty * (VENEER)	
30		Pulp *	
1		Newsprint *	PAPER
2		Book & Printing *	
3		Fine * (Stationery, etc.)	
4		Coarse (Wrapping, etc) *	
5		Special Industrial Absorbent (Felt) *	
6		Sanitary Tissue *	
7		Other Tissue *	
8		Container Board * (FIBERBOARD)	
9		Hardboard (FIBERBOARD)	
40		Insulation Board (FIBERBOARD)	

* See Instructions for Code

Instructions

#14-25 - Code
1. Hardwood Rough
2. Softwood Rough
3. Both Rough
4. Hardwood Surfaced
5. Softwood Surfaced
6. Both Surfaced
7. Hwd Rough & Surfaced
8. Sftwd. Rough & Surfaced
9. Both Rough & Surfaced

#26-29 - Code
1. Unspliced 8' & longer
2. Unspliced under 8'
3. Unspliced all lengths
4. Spliced 8' & longer
5. Spliced under 8'
6. Spliced all lengths
9. Other

#30 - Pulp - Code
1. Chemical
2. Groundwood
3. Both chemical and Groundwood
4. Semi-chemical
5. Defibrated or Exploded

#31-37 - Code
1. Uncoated
2. Coated
3. Both coated and uncoated
4. Corrugated

#38 - 45 - Code
0. None
1. Used
2. Produced

Column Number			
1		Flake & Particle Board	
2		Excelsior Board	
3		Excelsior	
4		Shavings	
5		Chips	
6		Posts *	
7		Poles *	
8		Piling *	
9		Charcoal 1. Bulk 2. Briquette	
50		Distilation or Extractive Products	
1		Wood Flour	
2		Other	
3		Type * (PLYWOOD)	
4		Finish * (PLYWOOD)	
5		Major Products * (PLYWOOD)	
6		Handles	
7		Millwork, Moulding (Inc. Doors, Ladders)	
8		Flooring	
9		Shakes and Shingles	
60		Pallets	
1		Boxes and Crates	
2		Cooperage	
3		Furniture	
4		Fixtures-(Bars, Counters, etc.)	
5		Cabinets-(Kitchen, TV, etc.)	
6		Turned Products (Dowels, Bobbins, etc.)	
7		Toys and Novelties	
8		Buildings (Mobile, Prefab, trusses)	
9		Agricultural	
70		Recreation *	
1		Broker	
2		Wholesaler	
3		Retailer	
4		Manufacturer	
5			
6			
7			
8			
9			
80			

#46-48 - Code
1. Untreated
2. Treated
3. Both Untreated and Treated

#53 Plywood Type
1. Hardwood Face Plywood
2. Hardwood Nonface (Not Container)
3. Hardwood Both of above
4. Hardwood Container
5. Softwood Face
6. Softwood Construction
7. Softwood Both of Above
8. Softwood Container
9. Hardwood & Softwood Plywood

#54 Plywood Finishing
1. Unfinished panels
2. Prefinished panels
3. Both unfinished and Prefinished panels
4. Unfinished curved or moulded
5. Prefinished curved or moulded
6. Both unfinished and prefinished curved
7. Both unfinished panels and curved
8. Both prefinished panels and curved
9. Other

#55 Plywood Products
1. Wall panels
2. Door Skins
3. Both wall panels and door skins
4. Flooring
5. Cabinet parts (Kitchen, TV, etc.)
6. Furniture parts
7. Machined or turned parts

#70 Recreation Items - Code
1. Hunting (Incl. Archery)
2. Fishing (Incl. boats)
3. Water sports
4. Golf
5. Playground - Court
6. Gymnasium
7. Bowling, pool, etc.
8. Skiing (winter)
9. Other

Wood-Using Industry Directory

Extracts of sections of the Minnesota Wood-Using Industry Directory as printed out by the computer from cards punched according to the described system are shown in the following illustrations:

PRODUCERS OF ROUNDWOOD
(LOGGERS)

NAME OF PRODUCER ADDRESS PHONE NUMBER	SPECIES*	PRODUCTS PRODUCED	VOLUME* CLASS	COUNTY
ANDERSON, TOIVO MC GREGOR, MINN. 55760	ASP, SPR, BAL, HDWDS.	PULPWOOD SAWLOGS VENEER LOGS	B C A	AITKIN
BOTTILLA, SULO MORA, MINN. 55051	ASH, ELM, MAP, BIR, BASS.	SAWLOGS POSTS & POLES	A H	KANABEC
CALLIO, JOHN LOMAN, MINN. 56654 PH: 218-456-1475	JP, CED.	POSTS & POLES	D	KOOCHICHING

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

SAWMILLS

NAME OF SAWMILL ADDRESS PHONE NUMBER	SPECIES*	PROD. SIZE CLASS	TYPE OF SAWMILL	OTHER EQUIPMENT	COUNTY
ANDREWS, SAM SEBEKA, MINN. 56477	ASP, JP, MAP, BASS, OAK.	D	STATIONARY	DEBARKER CHIPPER PLANER	WADENA
BAKKA, JOE BIG FALLS, MINN. 56627 PH: 218-546-1345	NP, WP, TAM.	B	PORTABLE		KOOCHICHING

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

WOOD PROCESSING INDUSTRIES

(PRODUCTS MADE FROM WOOD)

NAME OF INDUSTRY ADDRESS OF INDUSTRY PHONE NUMBER	SPECIES*	VOLUME USED*	MANUFACTURED PRODUCT	COUNTY
ADAMS PRODUCTS INC. 243 WEST FAIRFIELD AVE. ST. PAUL, MINN. 55107 PH: 612-777-2345	OAK, ASH, BIR.	E	FURNITURE	RAMSEY
BACKS LOG CABIN IND. LA PORTE, MINN. 56461 PH: 218-435-6723	NP, WP, JP, WHS.	F	PRECUT LOG CABINS	CROW WING
COMLINSON LBR. CO. CALLOWAY, MINN. 56521 PH: 218-4659	ASP, MAP, BASS, OAK.	C	FEEDERS PALLETS	AITKIN

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

WOOD USING INDUSTRIES

(AS A RULE, WOOD IS NOT A MAJOR PART OF THE MANUFACTURED PRODUCT.)

NAME OF INDUSTRY ADDRESS OF INDUSTRY PHONE NUMBER	SPECIES*	VOLUME USED*	WOOD PRODUCTS PURCHASED	COUNTY
ARMCO STEEL METAL CO. 4345 LYNDALE AVE. NO. MPLS., MINN. 55412 PH: 612-468-4259	ASP, WEST.	C C	PALLETS LUMBER	HENNEPIN
TORO MFG. COMPANY 8111 LYNDALE AVE. SO. MPLS., MINN. 55420	BIR, OAK.	B	LUMBER-SQUARES	HENNEPIN
WEST CENTRAL TURKEYS ANOKA, MINN. 55303	ASP	B C	PALLETS SHAVINGS	ANOKA

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

CHRISTMAS TREE PRODUCERS

NAME OF PRODUCER ADDRESS	SPECIES*	VOLUME PRODUCED*	PRODUCTS PRODUCED	COUNTY
ANTILLA, VICKO JACOBSON, MINN. 55752	NP, WHS. BAL.	C	NATURAL TREES BOUGHS	AITKIN
BULTUS, WILLIAM OUTING, MINN. 56662	NP, SCP, WP.	J	PLANTATION TREES SHEARED TREES	CASS

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

MINNESOTA LUMBERYARDS

NAME OF LUMBERYARD	ADDRESS	SPECIES OF MINN. WOOD HANDLED*	COUNTY
ANDERSON LBR. CO.	MC GRATH, MINN. 56350	ASP, NP, WP, CED.	AITKIN
ANDREWS LBR. CO.	PALISADE, MINN. 56469	TAM, CED.	AITKIN

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

COLLECTORS OF MAPLE SAP

NAME OF COLLECTOR	ADDRESS	PRODUCTION CLASS* (IN GALS.OF SAP)	COUNTY
ANDERSON, ROBERT	MORA, MINN. 55051	C	KANABEC

* SEE CODES ON FLY LEAF IN BACK OF DIRECTORY

Some Recent Research Papers of the North Central Forest Experiment Station

Hardwood Siding Performance, by Glenn A. Cooper. U.S.D.A. Forest Serv. Res. Pap. NC-16, 11 p., illus., 1967.

Quantitative Color Measurement for Black Walnut Wood, by Ali A. Moslemi. U.S.D.A. Forest Serv. Res. Pap. NC-17, 16 p., illus., 1967.

Some Variables Affecting Hardwood Control With Stem Injections of 2,4,5-T, by John L. Arend. U.S.D.A. Forest Serv. Res. Pap. NC-18, 11 p., illus., 1967.

Timber Management Guide for Shortleaf Pine and Oak-Pine Types in Missouri, by K. A. Brinkman and N. F. Rogers. U.S.D.A. Forest Serv. Res. Pap. NC-19, 15 p., illus., 1967.

Selection of Superior Yellow Birch Trees, A Preliminary Guide, by Knud E. Clausen and Richard M. Godman. U.S.D.A. Forest Serv. Res. Pap. NC-20, 10 p., illus., 1967.

Stabilizing Eroding Streambanks in Sand Drift Areas of the Lake States, by Edward A. Hansen. U.S.D.A. Forest Serv. Res. Pap. NC-21, 12 p., illus., 1968.

Paper Birch: Its Characteristics, Properties, and Uses, A Review of Recent Literature, by Matti J. Hyvarinen. U.S.D.A. Forest Serv. Res. Pap. NC-22, 12 p., illus., 1968.

Proceedings of the Eighth Lake States Forest Tree Improvement Conference, September 12-13, 1967. U.S.D.A. Forest Serv. Res. Pap. NC-23, 60 p., illus., 1968.

Shrinkage and Footage Loss from Drying 4/4-Inch Hard Maple Lumber, by Daniel E. Dunmire. U.S.D.A. Forest Serv. Res. Pap. NC-24, 10 p., illus., 1968.

Topography and Soil Relations for White and Black Oak in Southern Indiana, by Peter R. Hannah. U.S.D.A. Forest Serv. Res. Pap. NC-25, 7 p., illus., 1968.

ABOUT THE FOREST SERVICE . . .

As our Nation grows, people expect and need more from their forests — more wood; more water, fish, and wildlife; more recreation and natural beauty; more special forest products and forage. The Forest Service of the U.S. Department of Agriculture helps to fulfill these expectations and needs through three major activities:

- Conducting forest and range research at over 75 locations ranging from Puerto Rico to Alaska to Hawaii.
- Participating with all State forestry agencies in cooperative programs to protect, improve, and wisely use our Country's 395 million acres of State, local, and private forest lands.
- Managing and protecting the 187-million acre National Forest System.

The Forest Service does this by encouraging use of the new knowledge that research scientists develop; by setting an example in managing, under sustained yield, the National Forests and Grasslands for multiple use purposes; and by cooperating with all States and with private citizens in their efforts to achieve better management, protection, and use of forest resources.

Traditionally, Forest Service people have been active members of the communities and towns in which they live and work. They strive to secure for all, continuous benefits from the Country's forest resources.

For more than 60 years, the Forest Service has been serving the Nation as a leading natural resource conservation agency.